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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/981,888 | 10/19/2001 | Hiroiyuki Sakurai | P 284026 | 7320 |

909 7590 08/14/2003
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EXAMINER

ROY, SIKHA

ART UNIT PAPER NUMBER

2879

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,888

Applicant(s)

SAKURAI ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (Claims 1-7) in Paper No. 6 is acknowledged.

Claim 8 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,246,179 to Yamada.

Regarding claim 1 Yamada discloses (column 5 lines 1-5 column 6 31-41 Fig. 4B) a display pixel comprising emissive element layer 66 held between first (transparent anode 61) and second (cathode) electrodes, pixel wiring members for pixels formed of

the organic EL element, including source electrode 18 formed together with the first electrode (anode 61) (Fig. 7 column 8 lines 60-63) in a plane over a dielectric transparent substrate 10 made of glass. Yamada further discloses (column 5 lines 47-52) that the pixel wiring comprising gate electrode, signal lines, drive power lines are composed of light reflecting metal aluminum.

Regarding the limitation comprising the pixel wiring member reflecting light emitted laterally from the light emitting layer, it is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. Thus, the functional limitation of pixel wiring member reflecting light emitted laterally from the light emitting layer is taught by Yamada under the principles of functional inherency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2- 4, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,246,179 to Yamada in view of JP 02060088 to Tamura et al.

Yamada discloses (column 6 lines 45-55, Fig. 4B) the insulating member 19 covering the pixel wiring member and the first electrode 61 composed of layers of insulating SiO₂, SiN films and a planarizing insulating film made of photosensitive resin formed on top of SiO₂, SiN films so that cathode 67 can be formed flatly in an overlying layer preventing disconnection. Yamada further discloses the self light-emitting layer is disposed within the opening formed in the insulating member 19 to expose the first electrode and is tapered towards the exposed surface of the first electrode.

Claim 2 differs from Yamada in that Yamada does not exemplify the water repellent insulating film.

Tamura et al. in pertinent art of thin film EL panel disclose (see Purpose and Constitution) a layer of epoxy resin consisting of highly water repellent resin is applied to the thin film panel so that intrusion of moisture can be prevented.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the planarizing insulating film of resin of Yamada by water repellent resin as taught by Tamura et al. for preventing intrusion of moisture and hence protecting the insulating films underneath.

Referring to claim 3 Yamada discloses the insulating film (19 in Fig. 4B, 17 in Fig. 7) made of SiO₂ serves as the inner wall of the opening for the self light-emitting layer.

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The use of silicon dioxide as hydrophilic surface is well known in the art of chemical mechanical planarization of substrates.

Referring to claim 4 Yamada discloses the insulating film may be composed of lamination of layers of insulating SiN film which is known in the art to be used as protective layer and hydrophilic insulating SiO₂ films.

Claim 5 essentially recites the same limitation as of claim 2 and hence is rejected for the same reason. Yamada also discloses (column 7 lines 12,13,35-40) the second electrode is a reflection electrode.

Claims 6 and 7 essentially recite the same limitations as of claims 3 and 4 respectively and hence are rejected for the same reasons (see rejections of claims 3 and 4).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,855,804 to Walker discloses (claims 22,23) silicon dioxide layer as hydrophilic layer. U.S. Patent 5,526,149 to Kanbe et al. discloses metal pixel wiring used for improving luminance of the display. U.S. Patent 6,597,121 to Imura discloses active matrix organic display device.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (703) 308-2826. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

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|-----------------------------------|---------------------------------------|--|-------------|
| Notice of References Cited | Application/Control No. 09/981,888 | Applicant(s)/Patent Under Reexamination SAKURAI ET AL. | |
| | Examiner Sikha Roy | Art Unit 2879 | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|--------------------|----------------|
| | A | US-6,246,179 | 06-2001 | Yamada, Tsutomu | 315/169.3 |
| | B | US-5,526,149 | 06-1996 | Kanbe et al. | 349/113 |
| | C | US-5,855,804 | 01-1999 | Walker, Michael A. | 216/89 |
| | D | US-6,597,121 | 07-2003 | Imura, Hironori | 315/169.3 |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
| | H | US- | | | |
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| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

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|---|---|--|-----------------|---------|---------------|----------------|
| | N | JP 02060088 A | 02-1990 | Japan | TAMURA et al. | H05B 33/04 |
| | O | | | | | |
| | P | | | | | |
| | Q | | | | | |
| | R | | | | | |
| | S | | | | | |
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NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.